

U.S. Patent Application No. 10/769,146
Attorney Docket No. 351991-991320 (Formerly 2102475-991320)

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Cancelled).

Claim 2 (Currently Amended): The semiconductor integrated circuit according to Claim ~~122~~, wherein the fuse element has a resistance value that satisfies:

~~the internal circuit further has a MOS transistor having a gate connected to the first external terminal; and~~

~~each of the first and second fuse elements has a resistance value that satisfies:~~

$$VOX > (Rm + Rx) \times I_{esd}$$

where VOX represents a breakdown voltage of a gate oxide film of the MOS transistor, Rm represents a wire resistance value in the electrostatic discharge current ~~path between the first and second external terminals~~, Rx represents ~~the~~ the resistance value of ~~all fuse elements arranged in the electrostatic discharge current path between the first and second external terminals~~ the fuse element, and Iesd represents a value of an electrostatic discharge current.

Claim 3 (Currently Amended): The semiconductor integrated circuit according to Claim ~~21~~, wherein the fuse elements remains firm even when energy of 200μJ is applied thereto.

Claim 4 (Currently Amended): The semiconductor integrated circuit according to Claim ~~21~~, wherein the fuse elements remains firm even when energy of 200μJ is applied thereto but breaks when a direct current of 30mA is applied thereto within 20 seconds.

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Claim 5 (Currently Amended): The semiconductor integrated circuit according to Claim 21, wherein the fuse elements ~~are~~is electrically disconnected when the semiconductor integrated circuit is mounted on a circuit board.

Claims 6-20 (Cancelled).

Claim 21 (New): A semiconductor integrated circuit comprising:

- an internal circuit including a plurality of MOS (Metal Oxide Semiconductor) transistors;
- a signal terminal connected to the internal circuit, and handling signals;
- a power supply terminal connected to the internal circuit, and supplied with a power supply potential;
- a ground terminal connected to the internal circuit, and supplied with a ground potential;
- a fuse element having one end connected to the signal terminal;
- a first electrostatic protecting circuit and a second electrostatic protecting circuit respectively connected to the power supply terminal and the ground terminal; and
- a discharge line connected to the first and second electrostatic protecting circuits and the other end of the fuse element, and serving as an electrostatic discharge current path.

Claim 22 (New): The semiconductor integrated circuit according to claim 21, wherein the signal terminal is connected to a gate of one of the MOS transistors.

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Claim 23 (New): The semiconductor integrated circuit according to claim 21, wherein no electrostatic protecting circuit is connected between the signal terminal and the discharge line.

Claim 24 (New): The semiconductor integrated circuit according to claim 21, wherein:

no fuse element is connected between the power supply terminal and the first electrostatic protecting circuit; and

no fuse element is connected between the ground terminal and the second electrostatic protecting circuit.

Claim 25 (New): The semiconductor integrated circuit according to claim 21, wherein an electrostatic charge given to the signal terminal is discharged via the first electrostatic protecting circuit or the second electrostatic protecting circuit.

Claim 26 (New): The semiconductor integrated circuit according to claim 21, wherein each of the first and second electrostatic protecting circuits is configured to two diodes.

Claim 27 (New): The semiconductor integrated circuit according to claim 26, wherein:

the two diodes comprise a first diode and a second diode;

an anode of the first diode is connected to the power supply terminal or the ground terminal; and

a cathode of the second diode is connected to the power supply terminal or the ground terminal.

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Claim 28 (New): The semiconductor integrated circuit according to claim 27, wherein:

a cathode of the first diode is connected to a power supply line; and

an anode of the second diode is connected to a ground line.